

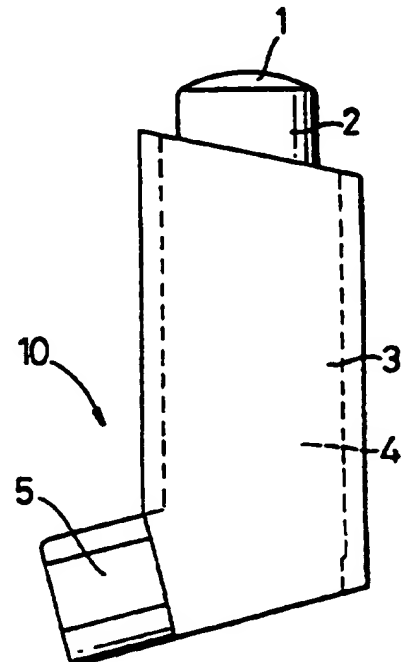


## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/GB96/00430 <b>(22) International Filing Date:</b> 26 February 1996 (26.02.96)  <b>(30) Priority Data:</b> 9503845.1                      25 February 1995 (25.02.95)      GB  <b>(71)(72) Applicant and Inventor:</b> MARR, Christoph, Thomas [GB/GB]; Flat 311, 10 Portman Mews South, London W1H 9AW (GB).  <b>(74) Agent:</b> MURGITROYD & COMPANY; 373 Scotland Street, Glasgow G5 8QA (GB).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>

**(54) Title:** A COVER FOR A DRUG DISPENSER**(57) Abstract**

A cover for a drug dispenser (10) includes a hollow sleeve (3) and a button (1). The hollow sleeve (3) fits over the dispenser (10) and the button (1) covers or substantially fills an open end of the dispenser (10). The invention is especially useful where the dispenser (10) is an asthma inhaler.



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1     A COVER FOR A DRUG DISPENSER

2

3     The invention relates to a cover for a drug dispenser,  
4     and especially a cover for an asthma inhaler.

5

6     There is at present a stigma attached to the use of  
7     such inhalers. When asthma sufferers, particularly  
8     sportsmen and children, use such a sleeve with their  
9     inhaler, there is a stigma attached. It is also known  
10    that the inhalers used are of different and dull  
11    colours, each colour identifying the different strength  
12    of medicine used with that particular inhaler. This  
13    colour coded system of inhalers allows hospitals,  
14    particularly in the case emergency, to quickly identify  
15    the medicine used by that asthma sufferer and can treat  
16    the patient accordingly. Using an asthma inhaler  
17    widens the air-pipe leading to the lungs, thereby  
18    allowing the sufferer to breath more easily.

19

20    It is known that the number of asthma sufferers has  
21    risen dramatically over the last twenty years, due  
22    mainly to rising levels of air pollution and increasing  
23    quantities of 'dust-mites' in households.

24

25

1 Asthma sufferers are faced with the embarrassing but  
2 necessary task of using inhalers in public. The length  
3 of time an asthma sufferer uses the inhaler should  
4 consist normally of one inhalation, which is kept in  
5 the lungs for 30 seconds, followed by another  
6 inhalation, which is kept in the lungs for 30 seconds.  
7 This amount of time can attract attention to the user,  
8 thereby causing embarrassment, particularly for  
9 children. This stigma may deter children and sportsmen  
10 from using their inhaler in public. In the case of an  
11 emergency, the absence of such use could prove fatal.

12  
13 In accordance with the present invention, a cover for a  
14 drug dispenser comprises a member which is adapted to  
15 fit over the dispenser, and the member having an  
16 external appearance which is different from the  
17 appearance of the dispenser.

18  
19 Preferably, the drug dispenser may be an asthma inhaler  
20 for dispensing a drug which alleviates or mitigates the  
21 symptoms of asthma.

22  
23 Typically, the member comprises a hollow sleeve.

24  
25 Preferably, the member fits over the dispenser in a  
26 tight fitting relationship with the dispenser and may  
27 be a friction fit on the dispenser.

28  
29 Typically the cover may include a top portion which  
30 covers or substantially fills an open end of the  
31 member. Alternatively, the cover may include a top  
32 portion which attaches to the top of the dispenser  
33 before or after the member has been placed on the  
34 dispenser. Typically, the top portion may attach to an  
35 end of a cartridge containing a drug.

36

1 Preferably, the member may be manufactured from a  
2 plastic, polymeric, rubber or synthetic rubber  
3 material. Alternatively, any other suitable material  
4 may be used.

5

6 The external surface of the member may be textured or  
7 moulded to a shape different from the external shape of  
8 the dispenser onto which the member fits.

9

10 Alternatively, or in addition the member may have a  
11 pattern or ornament on its external surface.

12

13 An example of a cover for a drug dispenser in  
14 accordance with the invention will now be described  
15 with reference to the accompanying drawings in which:-

16

17 Fig. 1 is a side view of an asthma inhaler, and a  
18 sleeve and button prior to fitting to the inhaler;  
19 Fig. 2 is a side view showing the sleeve being put  
20 over the inhaler;

21 Fig. 3 is a side view showing the sleeve and  
22 button both fitted to the inhaler;

23 Fig. 4 is a plan view of the sleeve and button  
24 fitted to inhaler; and,

25 Fig. 5 is a bottom view of the sleeve and button  
26 fitted to inhaler.

27

28 Fig. 1 shows an inhaler 10 which comprises a casing 4  
29 and a cap 5. An asthma drug canister 2 is shown  
30 inserted into the casing 4 of the inhaler 10. Also  
31 shown is a sleeve 3 and a button 1 prior to fitting the  
32 sleeve 3 and button 1 onto the casing 4 and canister 2,  
33 respectively.

34

35 Fig. 2 illustrates the sleeve 3 being slid over the  
36 casing 4. The sleeve 3 is a friction fit on the casing

1 4 and the sleeve 3 grips the casing 4 by means of high  
2 friction rubber from which the sleeve is manufactured.

3  
4 Fig. 3 illustrates the sleeve 3 fully fitted on to the  
5 casing 4. The button 1 is also fitted to a top end of  
6 the drug canister 2. After the sleeve 3 and the button  
7 1 have been fitted, the inhaler is ready to be used.

8  
9 Figs, 4 and 5 show a plan view and a bottom view  
10 respectively of the inhaler 10 with the sleeve 3 and  
11 button 1 fitted.

12  
13 Fig. 5 shows the area of the casing 4 which has been  
14 left uncovered by the sleeve 3.

15  
16 The button 1 is attached to the drug canister 2 by  
17 adhesive. The button 1 is supplied with the sleeve and  
18 a user of the inhaler fits the sleeve 3 and the button  
19 1 to the inhaler 10. The sleeve is tight fitting with  
20 respect to the casing 4. If high friction rubber is  
21 used to make the sleeve 3 this enhances the grip of the  
22 sleeve 3 on the casing 4.

23  
24 The sleeve 3 may be made out of an elastomeric material  
25 or plastic material which is a friction fit onto the  
26 inhaler casing 4. Alternatively, any other suitable  
27 material could be used.

28  
29 The sleeve 3 may have a pattern on its external  
30 surface. This pattern will differ in colour and in  
31 shape, depending on which model it is. For example,  
32 for children, sportsmen or women, teenagers or dress.  
33 The sleeve can be textured and may be injection moulded  
34 from plastic in an injection moulding machine.

35  
36 On another model of cover, the sleeve 3 may be in the

1 form of a grip which may appear similar to the shape of  
2 a ski-stick grip, that is with grooves large enough for  
3 fingers to grip the inhaler more effectively.

4  
5 The basic concept, however, is the same regardless of  
6 the outer shape of the sleeve 3. The sleeve 3 may be  
7 adaptable to fit all inhalers with a similar shape to a  
8 Metered Dose Inhaler (MDI) which has been used as an  
9 example in Figs. 1 to 5

10

11 Advantages of the invention are that it removes or  
12 reduces the stigma attached to the use of asthma  
13 inhalers. This is done by providing a cover which may  
14 be textured and/or patterned and/or coloured and is  
15 adapted to conform to the casing 4 of the inhaler 10.  
16 The sleeve 3 will have some form of pattern. The  
17 different models intended, for example, various  
18 children's models, various sports models and various  
19 'teenager' models should make users of the inhaler more  
20 comfortable using it in public, thereby reducing the  
21 stigma attached to the use of such an inhaler. The  
22 sleeve should reduce the stigma attached to using such  
23 a medical aid. In turn, more children, sportsmen and  
24 sportswomen will be encouraged to use their inhalers,  
25 thereby avoiding potential asthma attacks.

26

1     **CLAIMS**

2

3     1.    A cover for a drug dispenser comprising a member  
4           which is adapted to fit over the dispenser and the  
5           member having an external appearance which is  
6           different from the appearance of the dispenser.

7

8     2.    A cover according to claim 1, wherein the member  
9           comprises a hollow sleeve.

10

11    3.    A cover according to claim 1 or claim 2, wherein  
12           the member fits over the dispenser in a tight  
13           fitting relationship with the dispenser.

14

15    4.    A cover according to claim 3, wherein the member  
16           is a friction fit on the dispenser.

17

18    5.    A cover according to any of the preceding claims,  
19           and further comprising a top portion which covers  
20           an open end of the member.

21

22    6.    A cover according to claim 5, wherein the top  
23           portion attaches to an end of a cartridge  
24           containing a drug.

25

26    7.    A cover according to any of the preceding claims,  
27           wherein the external surface of the member is  
28           textured.

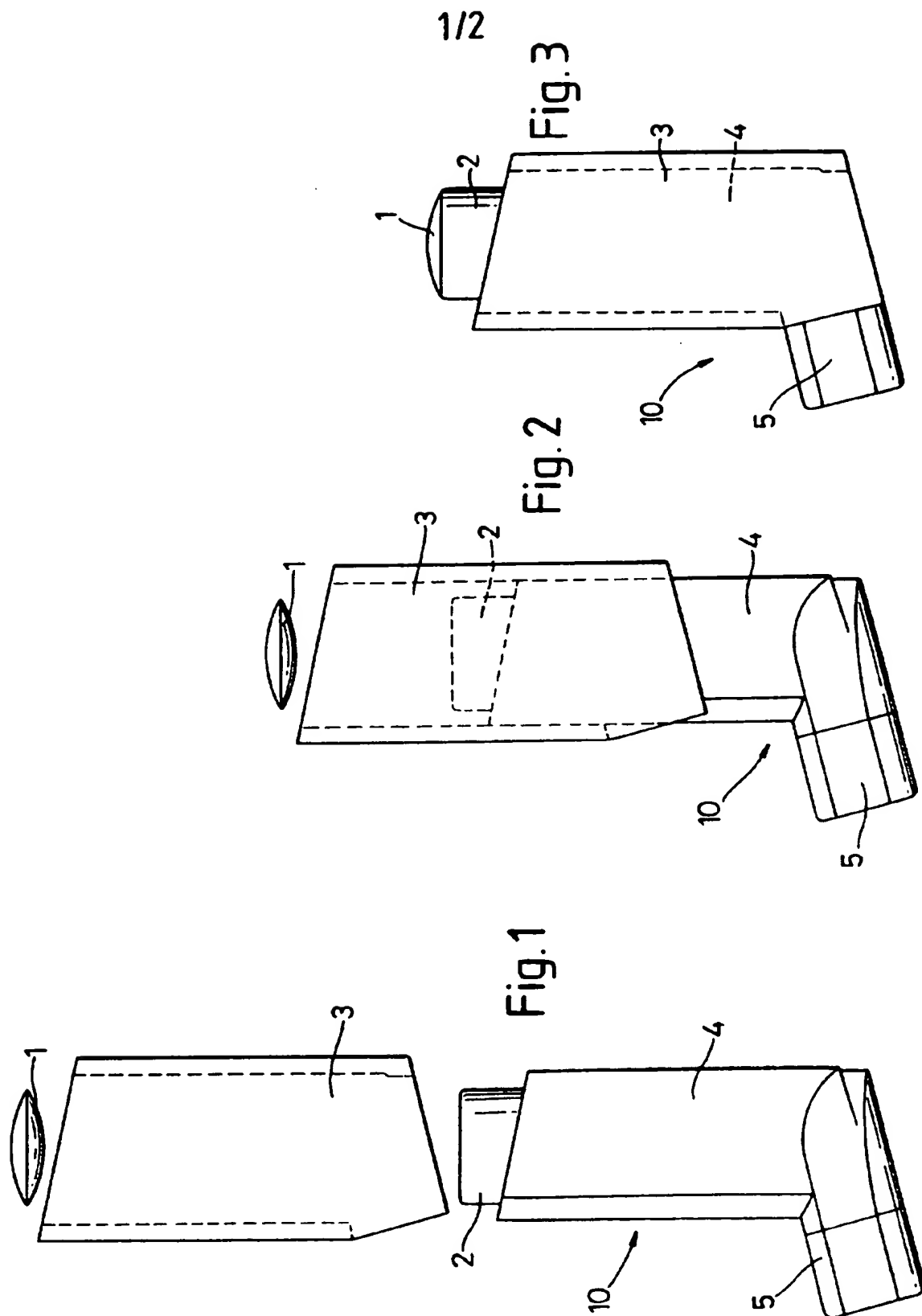
29

30    8.    A cover according to any of the preceding claims,  
31           wherein the external surface of the member has a  
32           pattern on it.

33

34    9.    A cover according to any of the preceding claims,  
35           wherein the external surface of the member has at  
36           least two colours.

- 1 10. A cover for an asthma inhaler according to any of
- 2 the preceding claims.
- 3



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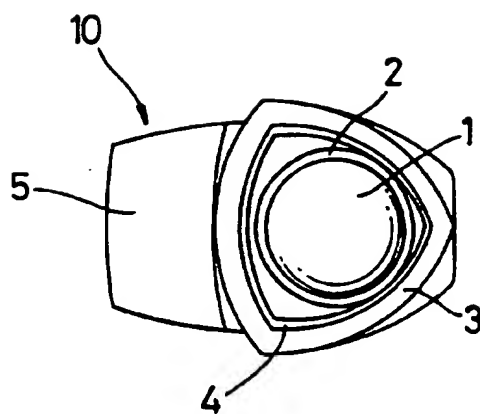


Fig. 4

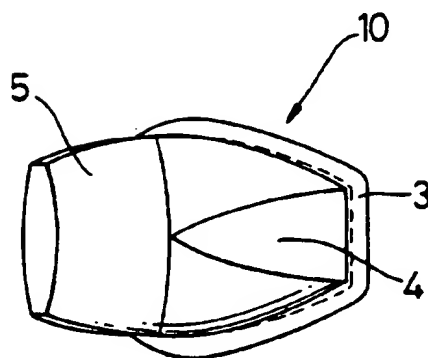


Fig. 5

## INTERNATIONAL SEARCH REPORT

Int'l. Application No

PCT/GB 96/00430

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 A61M15/00 B65D83/14

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 6 A61M B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB,A,2 214 891 (FIBRENYLE LTD) 13 September 1989	1-7
Y	see abstract; figures 1,2,6,9-11 see page 6, line 33 - page 8, line 4; figures 22-24 see page 9, line 34 - page 10, line 2 see page 12, line 23 - line 36 ---	8,9
X	GB,A,1 120 945 (FISONS PHARMACEUTICALS LIMITED) 24 July 1968	1-6,10
Y	see page 2, line 117 - line 129; figure 1 see page 1, line 9 - line 17 ---	7
X	EP,A,0 308 100 (BESPAK PLC) 22 March 1989 see abstract; figure 1 see column 5, line 5 - line 9 ---	1-6
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Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	FR,A,2 086 553 (L'ORÉAL) 31 December 1971 see page 4, line 36 - page 5, line 7; figures ---	7
Y	GB,A,843 371 (PEERLESS TUBE COMPANY) 4 August 1960 see page 1, line 74 - page 2, line 15; figures 1,5 -----	8,9

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information on patent family members

International Application No

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